SEWER SYSTEM MANAGEMENT PLAN

(SSMP)

for the

COSTA MESA SANITARY DISTRICT

July 19, 2002

SEWER SYSTEM MANAGEMENT PLAN

Introduction

The Santa Ana Region of the State Water Quality Control Board oversees the water quality in the waters of the State, particularly the Pacific Ocean and the Newport Beach Upper and Lower Bay. The beaches along the coast have been closed numerous times due to contaminated surface water runoff and sewer spills and the closures have impacted the economy associate with the summer beach activity.

In response to the beach closures, the Water Quality Control Board adopted new storm drain and sewer regulations. The new sewer regulations, termed the Waste Discharge Requirements (WDR) were adopted on April 26, 2002, and apply to all the sewer system owners in Orange County whose lines are tributary to the Orange County Sanitation District treatment plants. Therefore, these regulations apply directly to the Costa Mesa Sanitary District.

One of the requirements of the WDR is preparation and implementation of a Sewer System Management Plan (SSMP). By preparing and practicing the procedures in the plan, the occurrence of sewer spills should decrease. The Sewer System Management Plan for the Costa Mesa Sanitary District is shown below and almost all of the requirements are already being practiced by the Sanitary District due to years of taking a proactive approach to sewer system management.

Along with the recommendation to the Board of Directors to adopt the SSMP is to also direct the District staff to continually update the plan and bring it back to the Board at appropriate intervals for approval.

Table of Contents

(i) Goals: The main goal of the Sewer System Management Plan (SSMP) is to prevent Sanitary Sewer Overflows (SSOs) and to provide a plan and schedule for measures to be implemented to prevent SSOs.

The Costa Mesa Sanitary District recognizes the importance of protecting ocean water quality by preventing sewer spills and is supplementing its existing sewer system management program with the requirements of the new State regulations.

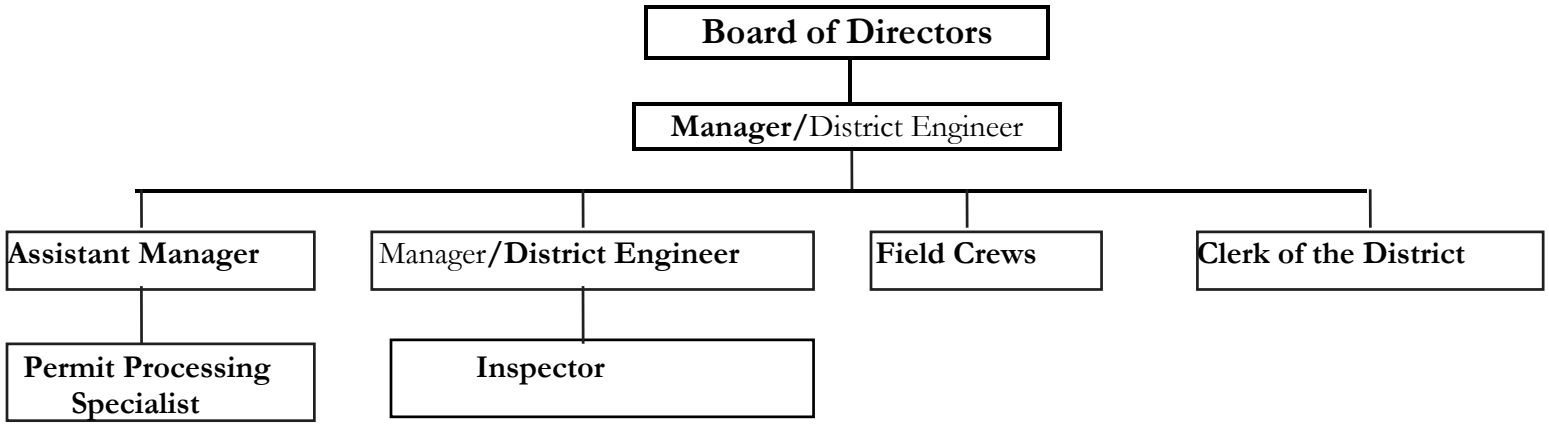
(ii) Organization: The SSMP must identify:

(A) Administrative and maintenance positions responsible for implementing measures in the SSMP program, including lines of authority by organization chart or similar document.

Below is the Organizational Chart showing the lines of authority of all the administrative and field staff and their respective responsibilities during a SSO.

EMERGENCY RESPONSE PROGRAM

ORGANIZATIONAL CHART & RESPONSIBILITIES



Manager/District Engineer - Stays in office with engineering plans of all facilities, plans strategy, authorizes outside contractors to perform services, is also public information officer.

Assistant Manager - Documents activities through pictures and reports. Handles all required spill reporting.

Permit Processing Specialist-Works as needed; provides support to all parts of operation.

Inspector - Works with Field Crews to handle emergencies. Provides verbal reports to Manager/District Engineer, evaluates situation & plans strategy with Manager/District Engineer.

Field Crews - Implements emergency response. Mobilizes sewer cleaning trucks, by-pass equipment, and diesel-powered generators.

Clerk of the District - Faxes situation updates to Board. Arranges for emergency Board meeting if necessary.

(B) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the Regional Water Quality Control Board, Orange County Health Care Agency, and Sate Office of Emergency Services (OES); reporting to the OES is required if the discharge is 1,000 gallons or larger.

The District's Assistant Manager is responsible for overseeing the reporting process. The Assistant Manager receives the spill report from the field crew and drafts up the required report. The draft is then reviewed with the Manager/District Engineer with consideration given to volume calculations, vacuum and wash down operations, cause of spill, timeliness of response, etc. After discussions are complete, the report is finalized and transmitted to the appropriate authorities. Normal procedure has always been for the District is to report all spills regardless of size and whether or not the spill reaches the waters of the State. The District has always believed in keeping the reporting agencies and the public fully informed.

Prior to the Regional Water Quality Control Board preparing reporting requirements, the District utilized its own reporting form. As a first priority during a sewer spill, District staff and field crews notify the appropriate agencies by phone that a spill has occurred instead of depending on the report as a means of notification.

(iii) Legal Authority: The SSMP shall include legal authority, through sewer use ordinances, service agreements or other legally binding procedures, to:

(A) Control infiltration and connections from inflow sources, including satellite systems;

The Sanitary District has the power to install sewers and enact regulations related thereto, including the prohibition of private sewer systems and requiring all inhabited property to be connected to District sewers. Health and Safety Code Section 6400 et seq. Once exercised, a sanitary district's power is controlling over any general law city or county regulation pertaining to the same subject. Home Gardens Sanitary District v. City of Corona (2002) 116 Cal.Rptr.2d 638. The District has enacted an Operations Code by ordinance. Violations are a misdemeanor. (Section 1.02.010)

By ordinance, the District has established a long-range financial plan to ensure capital replacement. (District Operations Code Sections 4.40.060 and 4.40.070)

Sewer construction is regulated by Title 7 of the Operations Code. All sewer construction must be in accordance with District standards. (Section 7.01.010) The type of materials and inspection requirements by District staff are provided in Chapter 7.01.

From 1989 to 1992, the Sanitary District completed a thorough video inspection of the all the sewer mains in the system. The results of the video inspection show virtually no sources of infiltration into the lines. Although no sources of infiltration were discovered, the legal authority to control infiltration simply consists of Board of Directors approval of maintenance or capital projects that will eliminate infiltration.

Legally controlling inflow encompasses controlling the two major sources of inflow: illegal connections and submerged or flooded streets causing water to enter the pick holes in manhole covers. Illegal connections are usually connections to the sewer system by

property owners who have drainage problems due to flat areas and low spots and who solve those problems by draining those areas to an inlet that is connected to the sewer system. When instances of these illegal connections are found, the homeowner is required to immediately remove the connection. The District's sewer permit issuance procedure is supported by ordinance and any illegal connections are subject to citations.

The other source of inflow is from submerged intersections during heavy storms where the covers are subject to local flooding. The option of using watertight manhole covers was considered but then dismissed because watertight manhole covers are bolted down and become hard to remove during nighttime emergencies or heavy storms.

The Sanitary District has been working with the storm drain owners to encourage upsizing the storm drain facilities to remove intersection or street flooding.

(B) Require that sewers and connections be properly designed and constructed.

The Sanitary District has its Standard Plans and Specifications for the Construction of Sanitary Sewers which insures the sewer lines and connections are properly designed and constructed. The District's Specifications by reference incorporate the Standard Plans and Specifications for Public Works Construction (Green Book), which helps insure proper design and construction of sewer facilities.

(C) Ensure proper installation, testing, and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated service laterals).

The Sanitary District has a full time Inspector who has been the District Inspector since 1981. The Inspector is trained and well experienced in pipeline and pumping station construction. The Inspector attends training classes and educational seminars to stay familiar with advancements in the industry. The Inspector maintains a copy of the Costa Mesa Sanitary District Standard Plans for Sanitary Sewer Construction, the Standard

Specifications for Public Works Construction Inspection Manual, the Work Area Traffic Control Manual (WATCH), and the CALTRANS Manual for Work Upon Highways, on the job at all times.

Results of the District-wide video inspection show that vitrified clay pipe will remain in excellent condition if proper construction practices are followed. Providing continuous inspection insures the proper construction practices are followed. Continuous inspection of other utilities being installed in the vicinity of the sewer lines insures proper protection methods are provided for the sewer lines and lengthens the life expectancy of the lines.

(D) Limit fats, greases, and other debris, which may cause blockages in the sewage collection system.

The District is currently studying the implementation of an ordinance that will control fats, oils, and greases (FOG). Grease has been identified as the number one cause of sewer line stoppages and spills by the Sanitary District and by the Orange County Grand Jury who conducted a Countywide study. Because of this finding, FOGs have been identified as the most important first step in improving sewer system reliability.

The General Counsel for the District has opined that the District has the legal authority to control discharges to the sewer system for all sewer facilities located on private property that are outside any structures located on the property. This authority allows the District to require grease interceptors because by Code the interceptor is located outside the building.

The legal authority for plumbing fixtures inside a building rests with the local agency building department. The Sanitary District has been working with the Building Officials of the three building departments within the District's service area to urge adoption of policies, which will be consistent with the goal of removing FOGs from the sewer system.

The District controls the discharge of 'other debris' into the sewer system through its ordinances and through the ordinances of the Orange County Sanitation District who also have regulations that prohibit unapproved debris from being discharged into the system.

(E) Implement the general and specific prohibitions of the national pretreatment program under 40 CFR 403.5.

The District supports pretreatment as a means of improving the efficiency of the sewer collection system and the treatment plant operation. Because the Orange County Sanitation District (OCSD) has a comprehensive pretreatment program, the Sanitary District supports the program and reminds all Applicants they must comply with the recommendations of the program to receive a sewer permit from the Sanitary District.

(iv) Measures and Activities: In order to provide an adequate and appropriate SSO reduction plan, the SSMP must address the elements listed below that are appropriate and applicable to the discharger's system and identify the person or position in the organization responsible for each element.

(A) Provide adequate operation and maintenance of facilities and equipment.

The District has historically cleaned the sewer system once a year and continues to do so today. Once a year is the industry standard for agencies with comprehensive sewer maintenance programs. Areas needing more frequent cleaning – known as hot spots – are cleaned as frequently as once a week. These are the inverted siphons that run under flood control channels or commercial areas with multiple restaurants.

The District has two sewer cleaning trucks, each with a two-man crew. In addition to these four workers, the District has a Senior Lead Maintenance Worker who is responsible for the performance of the crews plus the maintenance of the 20 pumping stations. One of the field crew members is also trained in pump maintenance and has the title of Pump Technician.

In addition to the daily cleaning of the gravity sewer lines by the two man crews, the District has a pumping station maintenance program. The District knows the recommended pump maintenance schedule from the pump manufacturer and for the rest of the piping, valves, and other equipment in the station and valve vault, the District uses the recommended maintenance schedule provided by Schuler Engineering Corporation. Bruce Schuler was requested to provide an outline for the program because of his extensive experience in construction and rehabilitation of pumping stations. Schuler is one of the District's emergency contractors plus he has bid and successfully constructed various District projects.

(B) Maintain an up-to-date map of the collection system showing all gravity line segments and manholes, pumping station facilities, pressure pipes and valves and storm water conveyance facilities.

The District has a Sewer Atlas that is continuously updated as new facilities are constructed. The Atlas shows the location of all sewer mains, manholes, laterals, pumping stations and pressurized sewer lines (force mains). The Atlas also has reference numbers to the particular construction plans that were used to build each portion of the system. In addition to the Sewer Atlas, plans of the sewer system are included in the Sewer Master Plan Update. The maps in the Master Plan are also updated as new facilities are constructed and are used in conjunction with the sewer line capacity calculations as a planning tool for the yearly Capital Improvement Program.

The locations of all the storm water conveyance facilities are shown on separate plans prepared by the agencies owning the storm drains and copies of these plans in reduced size format have been distributed to the CMSD District Engineer, Inspector, Field Crews, and Administrative Office. The District recognizes the link between a sewer spill and its travel in a storm drain facility to the receiving waters. The District has educated its Staff to understand the storm drain network and utilize it to capture a spill if it has entered the storm drain system.

The District understands the NPDES regulations for storm drain system owners contain requirements prohibiting sewer system spills into the storm drains. The NPDES requires the storm drain system owners to adopt measures that will decrease the possibility of sewer spills. An example is the use of interceptors for restaurants, which will decrease the amount of grease in the lines. The District attends the local NPDES meetings in order to coordinate the effort of the storm drain and sewer system owners.

(C) Maintain relevant information to establish and prioritize appropriate SSMP activities (such as the immediate elimination of dry weather overflows or overflows into sensitive waters, such as public drinking water supplies and

their source waters, swimming beaches and waters where swimming occurs, shellfish beds, designated Outstanding National Resource Waters or Areas of Special Biological Significance, National Marine Sanctuaries, waters within Federal, State, or local parks, and water containing threatened or endangered species or their habitat), and identify and illustrate trends in overflows, such as frequency and volume.

Studies by the District have identified the main causes of SSOs within the District and efforts have been prioritized to eliminate the causes. The Assistant Manager keeps a running spreadsheet of the sewer spills that includes the causes of the spills and the Engineer and the field crews use the causes to plan activities, programs and policies that eliminate the causes. For instance, the District identified restaurant grease as the number one cause of sewer line blockages and spills and as a response the District prepared and distributed its Restaurant Owner's Guide to Grease Control to all the restaurants within the District. Additionally, the District drafted an ordinance requiring grease interceptors for restaurants and is working towards its adoption.

Frequency and volume studies of sewer spills do not disclose any new identifiable trends. A trend of either frequency or volume indicates a chronic problem that can be specifically identified. Spills within the Costa Mesa Sanitary District are random. One reason is the District has identified all the areas prone to problems – known as hot spots – and services these areas as frequently as once a week.

(D) Routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the collection system with more frequent cleaning and maintenance targeted at known problem areas. The preventative Maintenance (PM) program should have a system of tracking work orders and assessing the success of the PM program.

Refer to Section (A) above for a description of the District's Operation and Maintenance program that describes the system for scheduling regular maintenance and cleaning including more frequent cleaning for problem areas. The District does not use work orders, instead, verbal requests are made and the field crew responds with a written report. The success of the program is discussed at the quarterly Safety/Loss Control Committee meetings and the Committee discusses ideas to improve the program.

(E) Establish a program to assess the current capacity of the collection system owned by the discharger or where the discharger has operational control; including diversions of urban runoff to the sewer system during dry weather periods and control of infiltration and intrusion during both wet weather events and dry weather periods.

The District has a Sewer Master Plan that assesses the capacity of the sewer system. The main purpose of a Master Plan is to compare the projected peak flow from the land uses adopted in the General Land Use Plan with the carrying capacity of the sewer lines. Lines unable to handle the maximum flows are supplemented by additional parallel lines. The District's Sewer Master Plan Update will be completed in July 2002 and will be continuously updated as needed.

Regarding allowing diversions of urban runoff into the sewer system, the District was agreeable to a proposed Orange County Flood Control District low flow diversion where flows from the Greenville Banning Channel in Costa Mesa would be pumped into the Sanitary District's Canyon Drive sewer system. However, during design of the diversion facilities, the Flood Control District abandoned the project because of the costliness of constructing a line up the unstable slope bank of the City's western bluff plus the Fairview Park lands where the piping would be installed is an Indian burial ground.

Control of infiltration and intrusion (intrusion commonly referred to as inflow; and infiltration and inflow collectively known as I/I) is discussed in detail in Section (iii) (A) above. I/I is also addressed in the Sewer Master Plan Update.

(F) Identify and prioritize structural deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. This shall include a rehabilitation plan including schedules for the entire system. As with the PM program, sewer rehabilitation and replacement is crucial for the prevention of spills. Among the provisions that should be specified in this section is the need to direct rehabilitation and replacement at sewer pipes which are at risk of collapse or prone to more frequent blockages due to pipe defects. The program should also include regular visual and TV inspection of sewer pipes and a system for assessing and ranking the condition of sewer pipes. Finally, the rehabilitation and replacement plan should include a financial plan that properly manages and protects the infrastructure assets.

As written in the Costa Mesa Sanitary District Sewer Master Plan Update, there are no structural deficiencies in the sewer system. The District's 1989-1993 video of the sewer system disclosed the few gravity line segments that necessitated point repairs and these repairs were handled in the early 1990s. Since then the District has completed small yearly televising projects to stay ahead of needed repairs but from a long-term standpoint the District will be re-televising the entire gravity system around 2004-2007 and the results will disclose any additional point repairs that need to be completed. These repairs will be scheduled for completion in the yearly Capital Improvement Program.

The sewer pumping stations and pressurized sewer lines (force mains) require a more aggressive maintenance program. The 20 pumping stations have equipment that operates in short cycles throughout each hour of each day. The stations are monitored and maintained daily and because of the continuous operation, any deficiencies are readily apparent. Maintenance is on going and on an as-needed basis.

As part of the Sewer Master Plan, a rehabilitation schedule is being prepared for the 20 force mains. Because these lines flow under pressure, they have a shorter life expectancy than gravity sewers. Whereas gravity sewers can be video inspected while they are in

operation, force mains must be totally shut down and the system by-passed in order to allow the camera to travel down the line. The maintenance schedule will be based on date of installation, type of pipe, anticipated life expectancy, operating conditions, and previous ruptures, if any. Nonetheless, prior to any replacement, the District will shut an individual line down and perform a video inspection.

The current sewer charges provide approximately $1 million yearly for the Capital Improvement Program. By law, these funds must be used for maintenance and rehabilitation projects and not for expansion projects. In addition to these funds, various other items in the budget are dedicated to sewer system maintenance and operation.

(G) Provide training on a regular basis for staff in collection system operations, maintenance, and monitoring and determine if contractors' staffs are appropriately trained.

The field crew staff and inspector attended formalized collection system training in June 2002 and will also be taking the Level 1 and 2 certification tests provided by the California Water Environment Agency (CWEA). The majority of the five collection system crew members have 20 or more years of service with the District. The Senior Lead Maintenance Worker and the Pump Technician have formalized training and received certificates in the repair and maintenance of the pumps from the Flygt Corporations, the manufacturer of the pumps used in the majority of the 20 pump stations.

In order to properly respond to a sewer system emergency that requires reconstruction of District sewer facilities, the District placed its long standing high quality contractors on emergency services agreements. The list contains contractors who have demonstrated expertise in pumping station construction, pipeline construction, televising, and pipeline rehabilitation utilizing trenchless technology. These contractors are staffed with well-experienced workers who are able to handle the scope of emergencies experienced in the District.

(H) Provide equipment and replacement parts inventories including identification of critical replacement parts.

For the Sanitary District, keeping critical replacement parts available encompasses stocking spare pumps that can be used as replacements while pumps are serviced or replaced. The District attempts to use the same model pumps in as many stations as possible to simplify maintenance and replacement.

The District has the necessary equipment to work on the sewer lines or pumping stations. In addition to small tools, the District has two sewer cleaning trucks; two trailer mounted emergency diesel generators, two by-pass pumps, and a truck with hoist capable of lifting the pumps.

(I) Establish an implementation plan and schedule for a public education outreach program that promotes proper disposal of grease and fats.

Because the District recognizes grease from restaurants as the number one cause of sewer line stoppages and spills, the District developed its Restaurant Owners' Guide to Grease Control. The pamphlet was published and distributed to every restaurant in the District and contains information on the importance of fighting grease as well as a list of grease control products available from the local hardware stores.

The District also recognizes grease from large multifamily residential developments as a second significant source of grease. The District is studying various options for homeowners to stop pouring grease down sinks from simply pouring it into a glass jar with a lid to using Japanese absorption products available at local stores. In the interim, the District has published a brochure titled "Homeowner's Guide to Sewer Lateral Maintenance" and the guide recommends pouring grease into a jar with a lid and storing it under the sink until trash collection day.

(J) In accordance with the County of Orange's Drainage Area Management Plan, establish a plan for responding to SSOs from private property that discharge to public right-of-ways and storm drains to prevent discharges from SSOs to surface waters and storm drains.

The District uses a four-step approach to private property SSOs that are discharging to the public right-of-ways. First, field crews block the storm drains so discharges will not enter the system. If they already have, the District uses the storm drain as a containment device and extracts the discharge and water used to flush the system from a downstream point in the system.

Secondly, the District sandbags the public right-of-way to prevent further discharges from leaving the property. Thirdly, the District notifies the property owner or management company of the spill and directs them to hire an emergency plumber to clear the system. District crews never leave the site until the problem is resolved and the spill is stopped and cleaned up. Fourthly, in addition to the regular reporting of spills, the District requests the Orange County Health Care Agency notify the property owner of the spill and demand corrective action.

The District Board has entered into contracts to perform emergency work that are pre-approved with contractors that already possess the license and insurance to perform such work. The District Board has enacted an ordinance, District Operations Code Section 4.05.010, that authorizes the District Manager to order emergency work in accordance with Public Contracts Code Sections 2086 and 22050.

(K) Develop a plan and a schedule for providing an analysis of alternative methods of disposal of grease and fats, and an implementation plan and schedule for providing adequate disposal capacity for grease and fats generated within the sewer system service area. This plan shall include an evaluation of the feasibility of using sludge digesters at the OCSD treatment plant for grease

disposal and treatment, recycling, and rendering, and other disposal alternatives.

The District has already developed multiple plans for alternative methods for the disposal of grease and fats. The District's Pilot Program for the Use of Enzymes is testing various bacteria and enzyme products to see whether grease and fats can be disposed of at their source rather than removing them further down the system. Bacteria additives have the ability to breakdown grease so it will not coagulate in the system. These same bacteria also prevent the formation of hydrogen sulfides, which cause odors and combine with water in moist pumping station environments to form sulfuric acids. To date, the District has tested various products and upon completion of the testing will publish the results in a report.

In addition to the Costa Mesa Sanitary District study, the Orange County Sanitation District has on behalf of itself, the County of Orange, and all the cities and sewering agencies in Orange County entered into a two phase consultant study for the control of fats, oils, and grease in sewer systems. This very large, comprehensive, study will provide the building blocks each agency can choose from to implement grease control measures. The funding for the study is shared among the agencies and the results will be available by December 30, 2004. One alternative being studied is using the sludge digesters at the OCSD plant for grease disposal and treatment, recycling, rendering, and other disposal alternatives.

It may be possible that the use of bacteria may preclude the necessity for requiring grease traps and interceptors in restaurants. A feeder for the bacteria installed in the restaurant's sewer lateral or in the closest manhole in the system may be the answer. As studies progress, the most efficient and cost effective solution will become apparent.

Also, the discussion and actions taken as described in Section (iii) (I) above will lead to less grease in the system from multifamily residential developments.

(v) Design and Performance Provisions

(A) Develop design and construction standards and specifications for the installation of new sewer systems, pump stations and other appurtenances; and for rehabilitation and repair of existing sewer systems.

The District's standards for the proper installation and inspection of sewer lines are discussed in Section (iii) (B) above. Additionally, the District has standardized its use of equipment in the pumping stations for ease of maintenance and replacement. This includes the pumps, liquid level indicators, electrical components, valves, piping and radios.

The District is monitoring the field of no-dig pipeline rehabilitation as advancements are continually being made. The Sanitary District considers no-dig technology to be the future answer to pipeline rehabilitation as systems reach their life expectancy. The Sanitary District's system will be 100 years old in 2050 and although vitrified clay pipe may have a life expectancy far greater than 100 years, the District is planning on no-dig rehabilitation methods to be the standard rehabilitation practice and will be developing construction standards as methods are perfected.

(B) Develop procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

The District's standard public works contract provides that the work is not placed into service and accepted by the Board of Directors until inspection and testing is completed. The District provides continuous inspection during the construction of sewer facilities and believes that proper installation is the key element to insure proper operation and maximum life expectancy. The District Inspector has the Green Book Inspection Manual for reference if needed although his 25 years of experience and training allow him to provide excellent observation of contractors' work. With regard to testing sewer lines, the District uses the Green Book recommended air-testing procedures on all new main lines.

(vi) Monitoring, Measurement and Program Modifications

(A) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP.

The SSMP will be reviewed monthly to insure all the provisions are implemented and the effectiveness discussed at the quarterly Safety Committee meetings. The Safety Committee includes the field crews, administrative staff, and the engineering staff.

(B) Update program elements, as appropriate, based on monitoring or performance evaluations.

The SSMP and its elements will be updated in accordance with the results of the monitoring and the Safety Committee recommendations. For instance, if the study of enzymes and bacteria progresses and the effectiveness determined successful enough to be used instead of traps and interceptors for grease control, the Sewer System Management Plan and District policies will be revised. Performance evaluations are on-going because the daily operations of the District includes all the elements of the program. District Staff will request the Board of Directors include a yearly or regular appropriation to fund the updating.

(C) Modify the summary of the SSMP program, as appropriate, to keep it updated and accurate and available for audit at all times.

A recommendation was made to the Board of Directors of the District to consider the Sewer Master Plan Update and its three elements; the Master Plan, the Sewer System Management Plan, and the Emergency Response Program as on-going concerns that will be continually reviewed and updated. The Draft Sewer Master Plan Update was accepted by the Board at the April 2002 meeting and final adoption is scheduled for July 2002.

(vii) Overflow Emergency Response Plan – The dischargers shall develop and implement an overflow emergency response plan that identifies measurers to protect public health and the environment. At a minimum, this plan should include the following:

(A) Ensure proper notification procedures so that the primary responders are informed of all SSOs in a timely manner (to the greatest extent possible).

The District's 24-hour Communications Center is available either by direct line at (714) 754-5250 or through the 911 operator. The Communications Center has immediate radio and cell phone access to the field crews during normal working hours and the same access to the Standby Man during non-working hours.

(B) Ensure that all overflows (including those that do not discharge to waters of the State) are appropriately responded to, including ensuring that reports of overflows are immediately dispatched to appropriate personnel for investigation and appropriate response.

District policy is to respond to all spills within the District – and even provide mutual aid outside the District – whether on public or private property and to take all steps possible to prevent the spills from reaching the storm drains, flood control channels, or waters of the State, all in accordance with the waste discharge requirements. Section (ii) Organization of this document details the lines of authority and responsibilities of District personnel during an emergency. Because the District provides only sewer service and trash collection service, the District has equipment and manpower dedicated solely to sewer system maintenance, operation, and emergency response.

(C) Ensure immediate notification of health agencies and other impacted entities (e.g., water suppliers) of all overflows. Report all SSOs to the Regional Water Quality Control Board and the Orange County Health Care Agency, and report to the State OES if the overflow is 1,000 gallons or larger. The SSMP

should identify the public health agency and the officials who will receive immediate notification.

The District's policy has always been to report all spills, regardless of size, to the Water Quality Control Board, the Orange County Health Care Agency, and the State OES, whether on public or private property, even if the spill is completely contained. The District believes in full disclosure of its operations and performance. The District hereby adopts the spill reporting form referenced in the reporting requirements of the waste discharge requirements. The form includes a list of the public health agencies and officials who will receive immediate notification of a spill.

(D) Ensure that appropriate staff and contractor personnel are aware of and follow the plan and are appropriately trained.

The role of each person during an emergency has been established and is clear and concise. The District has pre-established responsibilities for Staff members that work concurrently with the field crews to provide an efficient response. Each Sanitary District administrative staff member and field crewmember is required to read and sign off having read and understood the sewer system management plan and spill reporting form. Field crewmembers are required to keep copies of the Sewer System Management Plan and the spill reporting form in each vehicle.

If the emergency is during normal working hours, both field crews and the supervisor are working as appropriate to handle the emergency. At the same time, District Staff is positioned as follows:

The District Manager/Engineer is in his office where all the engineering plans are available for reference and where multiple phone lines can be used to arrange for contractors, pumper trucks, and other independent contractors. The preprogrammed cell

phones that the field crews and staff have allow instant communications and organization from the Engineering office.

The Assistant Manager is in the field, documenting the situation with pictures and verbal reports back to the Engineering office. The Assistant Manager will immediately verbally report any sewer spills to the required agencies and as soon as possible file the written report.

The CMSD Inspector is in the field and while providing direction to the field crew's reports continuously to the Engineer to insure the best possible actions are taken.

The Clerk of the District is in her office and transmits faxes to the Board of Directors to keep them apprised of the situation.

(E) Provide emergency operations, such as traffic and crowd control and other necessary emergency response.

The District's field crews respond to all emergencies, and if needed, the District utilizes its list of pre-approved qualified contractors. The list of contractors is kept in each field crew vehicle as well as in each administrative staff office and in the Sewer Master Plan. The independent contractors on the list have demonstrated exceptional workmanship over the years and the District has a signed emergency services agreement on file so there will be no delays in responding to an emergency. Both the District and the emergency contractors have traffic control equipment that can also be used for crowd control.

(F) Take all reasonable steps to contain sewage and prevent sewage discharges to surface waters and minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

The District field crews are required to use mats to block the catch basin entrances to the storm drains and use the two vacuum trucks to vacuum up spills and the wash down water. The District also uses the storm drain system as a containment device if needed. The outlet to the storm drain is blocked and the spill and wash down water are vacuumed from the line.

The impact of spills is minimized by washing the spill down with water to the maximum extent possible. The Orange County Health Care Agency has requested that only fresh water be used because disinfectants pose their own problems.

The District relies on the Orange County Health Care Agency (OCHCA) for monitoring water quality and posting beach closures. All spills are reported immediately to the OCHCA office.

(G) Develop and implement a plan for the use of portable aerators where complete recovery of the sanitary sewer overflows is not practicable and where severe oxygen depletion in existing surface waters is expected.

The District is investigating the cost and training needed for using portable aerators. The District recommends that one or two agencies that border the bodies of water have the aerators and be required to use them as required in the WDR.

(H) Develop and implement a plan to respond in a timely manner to spills and other emergencies. Collection system staff should be able to respond to a sewage spill in less than an hour from the first call. The system should be capable of meeting this response time day or night, every day of the week. The system must own or have ready access to spill and emergency response equipment such as vacuum trucks, hydroflushers, pumps, temporary bypass hoses and portable generators.

The District shall continue to maintain two two-man field crews and a supervisor who are responsible for cleaning the system and for being the first responders in the event of a spill. During normal working hours, the response time is a few minutes and after hours the field crew standby member is required to be on site within 20 minutes.

The District has two sewer cleaning vehicles (hydroflushers) with vacuum capabilities, traffic control equipment, two by-pass pumps and hoses, and two trailer-mounted standby generators.

(viii) Fats, Oils, and Grease Control Program: Prepare and implement a grease, fat, and oil source control program to reduce the amount of these substances discharged to the sewer collection system. This plan shall include the legal authority to prohibit discharges to the system and identify measures to prevent SSOs caused by fats, oils, and grease blockages of sewers. The elements of an effective grease control program may include requirements to install grease removal devices (such as traps or, preferably, interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements. An effective grease control program must also include authority to inspect grease produce producing facilities, enforcement authorities, and sufficient staff to inspect and enforce the grease ordinance.

The District has already researched the legality of adopting a grease control ordinance and finds it does have the authority to adopt and implement certain grease control regulations on public and private property. The District will be working in conjunction with the three agencies inside the District's boundary that have building departments - the City of Costa Mesa, the City of Newport Beach, and the County of Orange - to adopt common grease control regulations. The regulations will be developed from the results of the comprehensive grease control study initiated by the Orange County Sanitation District on behalf of the Orange County cities and sewer collection system owners. Inspection and enforcement activities are recognized as key components to a successful program.

(A) The grease control program shall identify sections of the sewer system subject to grease blockages and establish a cleaning maintenance schedule for each section.

The District has a list of 'hot spots', shown on the wall maps in the Lead Maintenance Worker's office that are subject to excess grease and are cleaned every Friday.

(B) The program shall develop and implement source control measures, for all sources of grease and fats discharged to the sewer system, for each section identified in (A) above.

Source control measures for each section of line identified in (A) above will consist of:

- Distribution of the District's pamphlets for restaurant and homeowner grease control.
- Restaurants will be required to install grease traps or interceptors.

or

- Restaurants will be required to introduce grease fighting enzymes or bacteria into the system if the tests currently being administered by the District and the OCSD consortium prove successful.

(ix) System Evaluation and Capacity Assurance Plan: Prepare and implement a capital improvement plan that will provide hydraulic capacity of key sewer system elements under peak flow conditions. At a minimum the plan must include:

(A) Evaluation: Steps to evaluate those portions of the collection system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.

The District has completed its Draft Sewer Master Plan Update which incorporates a hydraulic analysis of every line in the system and plans for increasing capacity for those lines found unable to handle future master planned flows. The current system capacity is able to handle, without problem, the current dry weather and wet weather peak sewer flows.

(B) Capacity Enhancement Measures: Establish a short and long-term capital improvement program to address identified hydraulic deficiencies including prioritization, alternatives analysis, and schedules.

The Sewer Master Plan Update contains a list of each project identified as necessary to increase the capacity of portions of the system. No improvements are required in the short term and long-term improvements will be planned according to development and metered sewer flows. During the design of each project, alternative designs are considered.

(C) Plan Updates: **The plan must be updated, at a minimum annually, to describe any significant change in proposed actions and/or implementation schedules. The updates should include available information on the performance of measures that have been implemented.**

The District will be updating its Sewer Master Plan annually.

(x) SSMP Program Audits – As part of the SSMP, the permittee shall conduct an internal audit, appropriate to the size of the system and the number of overflows, and submit a report of such audit, evaluating the SSMP and its compliance with this subsection, including its deficiencies and steps to respond to them.

The District will perform an internal audit evaluating its SSMP and its compliance with the WDR every two years and will report the results of the audits along with recommendations and suggested improvements to the Water Quality Control Board. The Board of Directors of the District has directed district staff to update this SSMP document continuously and bring the changes back to the board for approval.

(xi) Communications – The discharger should communicate on a regular basis with interested parties on the implementation and performance of its SSMP. The communication system should allow interested parties to provide input to the discharger as the program is developed and implemented.

The District Manager will provide interested parties with status updates on the implementation of the components of the SSMP and will also consider comments made by interested parties.

End of SSMP